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REMARKS

Claims 1-12 and 14-15 are currently pending in the subject application and are presently under consideration. Claims 1 and 10 have been amended herein. Favorable reconsideration of the subject patent application is respectfully requested in view of the comments and amendments herein.

I. Rejection of Claims 1-7 Under 35 U.S.C. §103(a)

Claims 1-7 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Peng *et al.* (U.S. 5,787,190) in view of Le *et al.* (U.S. 5,801,954). Withdrawal of this rejection is requested for at least the following reasons. The cited references, either alone or in combination, fail to teach or suggest all elements of the subject claims.

To reject claims in an application under §103, an examiner must establish a *prima facie* case of obviousness. A *prima facie* case of obviousness is established by a showing of three basic criteria. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. See MPEP §706.02(j). The teaching or suggestion to make the claimed combination and the reasonable expectation of success must be found in the prior art and not based on the Applicant's disclosure. See *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Applicants' claimed invention relates to utilizing feedback or feed-forward systems in the fabrication of a reticle to reduce critical dimension variance resulting from imperfections in process control or device performance. In particular, independent claim 1 as amended recites a fabrication device and a regulation component that receives reticle spectrometry inspection data from the fabrication device and mitigates delay time defects by utilizing the data to adjust control parameters of the fabrication device. Peng *et al.*

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and Le *et al.*, either alone or in combination, do not teach or suggest these aspects of the claimed invention.

Peng *et al.* relates to an automated system and procedure that processes wafer test bin data of semiconductor wafers to formulate a fault pattern at statistically significant levels. (See Abstract). The pattern shows the location of faulty dice and which test discovered the fault. (See Summary). The data is sent back to a fabrication plant to attempt to increase wafer yields. (See col. 3, ll. 58-60). The wafers of integrated circuit are the finished products of the fabrication plant. The finished product wafers are then given to the testing components. (See col. 3, ll. 5-30). However, Peng *et al.* does not disclose a regulation component that receives *reticle spectrometry inspection data* from the fabrication device. Scatterometry is a technique for extracting information about a surface upon which an incident light beam has been directed. Scatterometry is a metrology that relates the geometry of a sample to its scattering effects and is based on optical diffraction responses. (See pg. 24, ll. 13-15). As recited in claim 1, the regulation component receives inspection data created by spectrometry. Peng *et al.* discloses several testers such as a wafer reliability tester and a wafer electrical tester that test wafer test bins but is silent regarding inspecting a reticle with scatterometry to produce inspection data. Thus, Peng *et al.* fails to teach or suggest all limitations of claim 1.

The Examiner relies on Le *et al.* to cure the aforementioned deficiencies of Peng *et al.* However, applicants' representation respectfully submits that Le *et al.* does not teach or suggest reticle scatterometry as recited in claim 1. Le *et al.* relates to a process for checking phase-shifting mask layouts to determine if the masks will produce the desired images. (See Summary). The pattern of a phase-shifting mask can often be very different from what is finally printed on a wafer. (See Background). Using aerial image simulation, a simulated wafer image is produced based on a provided layout image. The simulated wafer image is compared with the mask layout to verify if the desired pattern design was produced. (See col. 4, ll. 5-34). Thus, Le *et al.* is concerned with preventing the problem of incorrect pattern designs being printed on a wafer which is inherent in the use of phase-shifting masks and is silent reticle scatterometry inspection data as recited in the subject claims. Therefore, Le *et al.* fails to make up for the deficiencies of Peng *et al.* in regards to independent claim 1.

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Moreover, in the Advisory Action dated March 3, 2006, the Examiner notes that *Le et al.* was provided to show that reticles and wafers can be produced in the same fashion. The Examiner then uses this as basis for stating that using the system of *Peng et al.* on a reticle would be obvious in light of *Le et al.* Applicants' representative contends that neither *Le et al.* nor *Peng et al.* disclose that wafers and reticles are produced in the same fashion. The Examiner must be taking official notice of such facts and applicants' representative respectfully requests that the Examiner provide specific references supporting this fact. Furthermore, even if reticles and wafers can be produced by similar processes, this fact does not pertain to the subject claims. Recticles and wafers are two distinct objects. A wafer is a finished product while a reticle is a mask utilized in the fabrication of wafers. Since wafers and reticles are directed towards different functions, different processes are necessary to inspect the two articles, as the relevant features are not the same.

In view of at least the foregoing, it is readily apparent that *Peng et al.* and *Le et al.*, either alone or in combination, fail to disclose, teach or suggest each and every element recited in the subject claims. Therefore, the cited references do not make obvious applicants' claimed invention and this rejection should be withdrawn.

II. Rejection of Claims 8, 10, 12-15 Under 35 U.S.C. §103(a)

Claims 8, 10, 12-15 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Peng et al.* in view of *Le et al.* and further in view of *Vernon* (U.S. 6,331,711). Withdrawal of this rejection is requested for at least the following reasons. The cited references, either alone or in combination, fail to teach or suggest all elements of the subject claims.

In particular, the cited references do not teach or suggest *an advanced process control system that automatically makes changes determined by the data processing component* as recited in independent claim 10. As discussed *supra*, *Peng et al.* relates to testing wafers for faulty dice and *Le et al.* relates to verifying a mask will produce the desired pattern when printed on a wafer. *Peng et al.* and *Le et al.* are silent regarding *an advanced process control system that automatically makes changes determined by the*

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data processing component. Thus, Peng *et al.* and Le *et al.*, alone or in combination, do not teach or suggest every limitation in the subject claims.

The Examiner relies on Vernon to cure the aforementioned deficiencies of Peng *et al.* and Le *et al.* Applicants' representative respectfully asserts that Vernon does not make up for the deficiencies. In particular, Vernon does not disclose, teach or *an advanced process control system that automatically makes changes determined by the data processing component* as recited in independent claim 10. Vernon relates to a system for correcting low frequency spatial errors present after primary scanning exposure by utilizing a secondary scanning exposure at a weaker intensity and greater area. (See Abstract). While Vernon may correct systematic variations to produce a more consistent result, it is silent regarding the use of an advanced process control system that automatically makes changes determined by the data processing component to improve future reticle fabrication. Therefore, Vernon fails to cure the deficiencies of Peng *et al.* and Le *et al.* in regards to independent claim 10.

In view of at least the foregoing, it is readily apparent that the cited references fail to make obvious applicant's invention as recited in the subject claims, and this rejection should be withdrawn.

III. Rejection of Claim 9 Under 35 U.S.C. §103(a)

Claim 9 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Peng *et al.* as modified by Le *et al.* and Vernon, and further in view of Bojko. Withdrawal of this rejection is requested for at least the following reasons. Claim 9 depends from independent claim 1, and Vernon and Bojko, either alone or in combination, fail to cure the aforementioned deficiencies of Peng *et al.* and Le *et al.* Accordingly, applicants' representative respectfully requests that this rejection be withdrawn.

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CONCLUSION

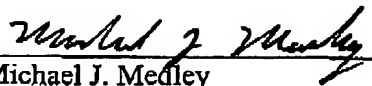
The present application is believed to be in condition for allowance in view of the above comments and amendments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063.

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicant's undersigned representative at the telephone number below.

Respectfully submitted,

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